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Rated "R" for reactance: The application of psychological reactance theory to the likelihood of college students to view films based on Motion Picture Association of America ratings

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Rated "R" for reactance: The application of psychological reactance theory to the likelihood of college students to view films based on Motion Picture Association of America ratings

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has met the thesis requirements of Iowa State University

Signatures have been redacted for privacy

DEDICATION

This paper and all of the work involved in creating it is dedicated to the person in my life that has been the source of every ounce of my inspiration: my wife Dawn. She is the reason I chose to continue my education, and the reason that I made it through. Every moment of our relationship she has been willing to sacrifice for me, and has done more for me than anyone ever could. She means more to me than anything in the world, and I owe all the effort of the last two years to her.

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ABSTRACT

The Motion Picture Association of America (MPAA) has employed its ratings system (G, PG, PG-13, R, and NC-17) since 1968 in an effort to inform and caution the public about a film's content. In arriving at a film's rating, the MPAA looks at such criteria as themes, violent content, language, nudity, sensuality, and depictions of drug abuse within a film. Data for this study was gathered through an experiment involving college students at a large Midwestern university in which 242 subjects responded to a questionnaire after being shown the synopsis of a fictitious film whose ratings were manipulated, in a search for support for the theory of psychological reactance. Reactance theory suggests that college students are most likely to view NC-17 rated films because they are closest to the age range (ages 17 and under) affected by the rating restrictions. The theory further suggests that students would next prefer R rated films (restricting ages 16 and under), followed by PG-13 rated films (restricting ages 12 and under), PG rated films (restricted by decision of parent), and G rated films (no restriction), in that order. Results of the experiment showed no evidence that college students prefer films in the above hypothesized order. However, significant effects of subject gender and the subject's year in school were found in that males have a higher likelihood to view PG-13 and R rated films than females; and juniors in college have higher film-going likelihoods than seniors, sophomores and freshmen. It was also found that, when combined, subjects' familiarity with the MPAA ratings and what they mean, the importance subjects place on film-going as a leisure activity, and the number of films the subject views per month have a significant influence on likelihood to view.

CHAPTER 1. INTRODUCTION

Over the years, the Motion Picture Association of America (MPAA) has monitored the content of the majority of commercially released films in the United States and incorporated a ratings system based on this content. The system began in 1968 with four ratings: G (for general audiences; all ages admitted), M (for mature audiences; parental guidance suggested but all ages admitted), R (restricted; children under 16 not to be admitted without a parent or adult guardian), and X (no one under 17 admitted) (Valenti, 2002).

Hollywood, California, the birthplace of the majority of American films, was in the throes of change in the mid-1960s. Rioting, the rise of the women's liberation movement, protests against the Vietnam War, doubts about the marriage 'institution,' the abandonment of old guiding slogans, and the deterioration of social traditions all characterized a generation in search of identity. These social upheavals spurred a change in filmmaking, and ushered in a new type of American film — one that was, according to MPAA President Jack Valenti, "frank and open, and made by filmmakers subject to very few self-imposed restraints" (Valenti, 2002).

In April of 1968, the United States Supreme Court backed the constitutional rights of U.S. states and cities to prevent the exposure of children to books and films adults had the right to view. In the fall of 1968, the MPAA joined with the National Association of Theatre Owners (NATO) in an effort to change the state of the film industry. The Hays Production Code (the decaying previous method for structure created by Will Hays in 1922) was abolished. Then on November 1, 1968, NATO, the MPAA and the International Film

Importers and Distributors of America (IFIDA) announced the creation of the new voluntary system of film rating (Valenti, 2002).

Soon after the system's creation, the M category was changed to GP (general audiences; parental guidance suggested), and a year later modified to PG (parental guidance suggested). On July 1, 1984, the PG category was split into two different categories, PG and PG-13 (meaning a higher level of intensity than a PG film), and on September 27, 1990, the X category was changed to NC-17 (no one 17 and under admitted). The current ratings are G, PG, PG-13, R, and NC-17. They provide parents with film content guidelines to determine what films may or may not be suitable for their children (Valenti, 2002).

Film ratings are based on themes and levels of violence, language, nudity, sensuality, and drug abuse, determined by an eight- to 13-member full-time MPAA Rating Board in Los Angeles, which watches each film it rates in its entirety. The board is employed by the Classification and Rating Administration, which is funded by fees charged to producers and/or distributors, for the rating of their films. The MPAA President chooses the Board Chairman, which insulates the decisions of the board from outside influences. The Rating Board can make decisions only by what is observed on the screen, not by what is imagined or thought (Valenti, 2002).

A film that earns a G rating from the MPAA is a film containing nothing offensive to children (in the Board's opinion) in terms of themes, violence, language, nudity, sensuality, and drug abuse. Language may exceed the content of polite conversation, but uses common, everyday expressions. There are no strong words, violence is at a minimum, and nudity, sex and/or drug content are non-existent. The board stresses that the G rating is not a 'certificate

of approval' (e.g., a film that parents could safely allow their children to view), and does not necessarily signify a children's film (Valenti, 2002).

A PG rated film is one that may need to be examined by parents before they allow their children to attend the film, for some material may be unsuitable for children. The theme of a PG film may require parental guidance, and there may be some profanity, mild violence, and/or brief nudity. However, these elements are not intense enough to warrant a PG-13 rating (Valenti, 2002).

The PG-13 rating means that parents should be strongly cautioned before allowing their children that are 12 and under to attend. A film rated PG-13 is one containing themes and levels of violence, language, nudity, sensuality and drug abuse too high to be classified under a PG rating, but not intense enough to require an R rating. Any drug use content whatsoever within a film requires at least a PG-13 rating, and if nudity is not sexually oriented, it can be within the boundaries of PG-13. Violence may exist, but if rough or persistent violence is existent, the film will be under an R rating. A film containing the single use of a harsh, sexually-derived word may fall within a PG-13 rating, but more than one use of such word, even as an expletive and not in a sexual context, will result in an R rating. Any use whatsoever of a harsh, sexually-derived word in a sexual context requires the same classification (Valenti, 2002).

R rated films contain (in the opinion of the Board) explicitly adult material. This rating applied to a film means that the film may include vulgar, hard language and violence, nudity within sexual scenes, drug abuse, or other elements, or a combination of any of these elements (Valenti, 2002).

A film with an NC-17 rating is one to which children 17 and under will not be admitted, even with the accompaniment of an adult. The rating does not necessarily mean the film is obscene or pornographic, but will most likely contain violence, sex, aberrant behavior or drug abuse or any other elements considered too intense for viewers under 18 (Valenti, 2002).

As prior research has suggested, children may be intrigued to go to a movie based on a certain rating, and convinced to avoid others based on another rating. Such a suggestion supports a statement by *Variety* Editor-in-Chief Peter Bart, who said "too many kids equate G with 'geeky' and would prefer to show their macho by sneaking into an R — a feat that's usually easy to accomplish. Indeed, the dirty little secret of the ratings system is that it has created a cult of the R movie, as though these were the only films that managed to escape the Hollywood sugar-coating" (Bart, 1999).

If this is indeed the case, then it is possible that the ratings system can create a predisposition about a film's content. Parents may see a PG-13 rating on a film and think that its language is explicit; they can see an R rating and believe the film will contain nudity. In reality, however, this PG-13 film may contain brief nudity and relatively "clean" language, while the R rated film may contain "filthy," obscene language and graphic violence, but no nudity (Valenti, 2002).

Does the rating make people want to see the film? It may be logical to assume that, by human nature, adults would like to see a film rated PG-13 or R more than those rated G or PG simply because it would be more related to their lifestyles and would not be so "child-oriented." It might also be an educated guess that movie-goers who are in their "rebellious teen" years might like to see a film simply because the rating is telling them that they should

not go, or that the content within the film may not be suitable for them. Such a predisposition might also be exhibited by adults, young and old.

The rating system is supposed to be a guideline, but it is becoming more of a characteristic. A film taking place on the battlefield in World War II that is rated PG may not be desirable if the viewer wishes an accurate depiction of the violence that occurred in that situation. Sometimes the scene calls for the visual freedom that a film can allow as opposed to television, but will not necessarily display firing guns and dropping bombs as a model behavior.

In recent years the MPAA added a list of film content in the film's trailer slate or poster, which is available to parents at theaters, in media reviews and listings, and on the Internet. This allows parents to see what kind of material will be present in the film. If parents do not wish their 10-year-old child to view nudity or hear bad language, but believes the violence of World War II will not be too graphic for the child, they may allow him or her to accompany them to the R rated WWII film. If a motion picture contains vulgar language but no nudity or violence, parents may allow the 12-year-old to attend the PG-13 rated film because they have "heard that kind of language before" (Valenti, 2002).

But who can say that listing what is in the film will not inspire children and/or young adults to want to see films containing certain content? How can anyone be aware of whether children and adolescents, now that they have a menu of what to expect in a film, will be more drawn to a "macho" film and turned away by a "geeky" one? The MPAA ratings may in fact do more harm than good. They may give people, especially children and young adults, more motivation to view films from which the ratings were trying to restrict them.

This study examined the possible effects of the MPAA film ratings on individuals' perceptions of film content, specifically on how young adults react to the ratings and whether those reactions affect their desire to see a film.

If there is indeed a significant effect on peoples' likelihood to see a film based on these ratings, the research in this study could benefit the parents of movie-viewing children, as well as adults who are conscious about what kind of film material they take in. A study such as this may be of interest to the members of the MPAA as well, giving them support for a possible modification of the ratings system.

CHAPTER 2. LITERATURE REVIEW

Motion pictures intended for the American viewing audience are monitored by the MPAA. The MPAA has devised a ratings system for motion pictures, including ratings of G, PG, PG-13, R, and NC-17. G rated films are open to all audiences, PG rated films suggest parental guidance, PG-13 rated films strongly caution parents, R rated films may not be attended by anyone under 17 without the accompaniment of an adult, and NC-17 films do not admit anyone 17 and under.

Thus, G rated films are accessible to the widest audience of all films, and NC-17 films are accessible to the most limited audience. PG rated films are open to a smaller audience than G rated films, PG-13 films to a smaller audience than PG films, and R rated films to an even smaller audience — which is still larger than the NC-17 film audience. Each rating has restrictions on who may legally be admitted to the film, and if certain audience segments need to be accompanied if they chose to see a film. The restrictions are intended to provide guidelines for parents as they determine what is suitable for their children to see.

Past researchers have suggested that people — particularly children and adolescents — may be intrigued to go to a movie based on a specific rating of the film, and convinced to avoid other films based on a different rating. If this is truly the case, then it is possible that the ratings system has an effect on people, creating a predisposition about a film's content. This particular study examined the effects of the MPAA film ratings on perceived film content, how people reacted to the ratings, and whether those reactions affected their desire to see the film.

The Theory of Psychological Reactance

Such effects would follow the assumptions of Brehm's (1966) theory of psychological reactance. According to Brehm:

> "Psychological reactance is conceived as a motivational state directed toward the re-establishment of the free behaviors which have been eliminated or threatened with elimination. Generally, then, a person who experiences reactance will be motivated to attempt to regain the lost or threatened freedoms by whatever methods are available and appropriate" (1966, p. 9).

The theory states that at any given period in time, an individual has established a set of behaviors in which he or she is free to engage (Brehm, 1966). In other words, "people have the subjective experience that they are masters of their own fate and that when a specific freedom is eliminated or threatened with elimination, individuals will be motivated to reaffirm their effective control" (Baer, Hinkle, Smith, & Fenton, 1980, p. 416).

Under this theoretical framework, potential film viewers who are faced with choosing which film to view would be more motivated to see a film with a rating such as PG-13, R, or NC-17 (e.g., those with more "adult-oriented" material) rather than a film rated G or PG as a psychological reaction to the reinstatement of a threatened freedom. This is because movies that are rated PG-13, R, or NC-17 are limited to a specific public audience. For PG-13 rated movies, only people over 12 or children 12 and under that are accompanied by an adult may attend. For R rated movies, only people over 16 or people 16 and under accompanied by a parent may be in attendance. For NC-17 rated movies, only people 18 and older may attend.

According to psychological reactance theory, these restrictions limit the freedom of each potential viewer to see the movie. Although this does not seem to apply to a person that is of age 18 or older (since that person would be allowed to see any movie he or she wishes), Brehm (1966) states that freedom being lost in this case is "by implication." This means that "if a person has lost a free behavior through social threat, then the engagement in a similar

free behavior by another person like himself and 'in the same boat,' will tend to re-establish his own freedom" (p. 11). This point was translated in a similar way by Wicklund and Brehm (1968), who indicated that when psychological reactance occurs as a result of a possible elimination rather than the actual elimination of freedom, the person showing reactance restores the freedom by engaging in the threatened (but not yet eliminated) behavior. For instance, person A and person B share an office space. When person A is told by a superior that he or she may not engage in a specific activity while person B is not told anything, person B may have a feeling that his or her freedom to engage in the activity lost by person A is also in danger (since the two share an office), and engage in that activity.

Also, Brehm (1966) indicates that the more important this freedom is to the individual, the more reactance will be experienced. In other words, despite the fact that people 18 years of age and older have no legal restriction on whether they may attend a certain film, they still experience a restriction of freedom by implication, and will thus be affected by the rating.

What is suggested in the case of people's choices of which films they will view is that ratings are created to limit the freedom of the general public to be exposed to certain film content. When someone sees that a movie has a certain rating — more specifically, a more restrictive rating of PG-13, R, or NC-17 — they will see other people's freedom being limited and choose to re-establish their own freedom despite the fact that it was not actually their own freedom that was being curtailed. This type of attractiveness toward a movie with more restriction is sometimes referred to as "forbidden fruit" attractiveness (Austin, Nicolich & Simonet, 1980, p. 28). Forbidden fruit attractiveness makes behaviors such as viewing pornography, vandalism and speeding more attractive because there are restrictions on them

(Christenson, 1972), and would seemingly create the same attractiveness in films with restrictions on them.

Prior Research and Tests of Reactance Theory

Tests of "Forbidden Fruit" Attractiveness

Reactance theory has been applied to and tested within a number of different concepts, including impression formation (Brehm & Cole, 1966), attitude change (Wicklund & Brehm, 1968), predecisional time period lengths (Linder & Crane, 1970), reading of persuasive speeches (Worchel & Brehm, 1970), the signing of petitions (Heilman, 1976), attitude change and compliance (Heilman & Toffler, 1976), vocational interest inventories (1979), an individual's appearance of autonomy (Baer, et al., 1980), adolescent drug use and intent to use drugs (Weng & Newcomb, 1989), restroom graffiti, group coercion, evaluation of illegal detergents, attractions to members of the opposite sex (Engs & Hanson, 1989), trainees' responses to different supervisory environments (Tracey, Ellickson, & Sherry, 1989), the effectiveness of alcohol prevention messages (Bensley & Wu, 1991), client personality characteristics (Dowd & Wallbrown, 1993), perceptions of paradoxical interventions (March, 1993), and psychiatric patients' motivations to smoke when placed under non-smoking restrictions (Jensen, 2000).

Prior research has applied reactance theory to the advisory labels placed on Belgian television programming and found that more people watched television programming with advisories warning them about violent or erotic content within the programming than programming without those advisories. This was found to be due to the fact that the content in the advised programs appeared "more desirable" to viewers. Support was found for

reactance theory as well as "commodity theory," a theory which would indicate that desirability is based in availability (Herman & Leyens, 1977).

In addition, Austin (1982) presents arguments supporting reactance theory when it is applied to a film rating's influence on motivation to see that film. In that article, Austin cited Fuchs and Lyle (1972) who argue that "film ratings, especially those which prohibit attendance for certain age groups (R and X) 'probably enhance a film's attractiveness'" (p. 29).

However, Christenson (1992) tested the "forbidden fruit" theory as well as the "tainted fruit" theory on the effects of parental advisory warnings placed on music (based on the content of lyrics). The tainted fruit theory suggests that a higher restriction of freedom would be interpreted as a caution that the person is likely to encounter material in the music they might find uncomfortable. This feeling of discomfort would result in the music's seeming less attractive, so that it would be less likely to be purchased. Christenson found support for the "tainted fruit" theory, as opposed to the "forbidden fruit" theory (which would support reactance theory). Christenson (1992), however, qualifies that his findings may also be attributed to the fact that music's ratings have been ranked as less important than other characteristics such as rhythm, vocal performance, instrumental performance and melody in past uses and gratifications studies.

Similarly, Austin (1982) indicates that the MPAA continually argues against the fact that there is a significant effect of a film's rating on someone's desire to see that film. He references his own work, which found that MPAA ratings were ranked 19th in importance by occasional movie-attending college students in a list of 28 variables in the movie selection process. For "frequent movie-goers," a film's rating ranked 15th (Austin, 1982, p. 30).

In a test of whether content advisories on television shows influenced viewers' motivations to watch that particular show, Wurtzel & Surlin (1978) found no support for reactance theory. The results of their study showed that only 24 percent of their sample of 284 residents of Athens, Georgia reported that the advisories influenced their decision to watch a show or not, and 71 percent reported no influence (p. 22-23).

In addition, Wurtzel and Surlin (1978) found that 54 percent of subjects with children reported that the warnings influenced their decision of whether or not to permit their children to view the programming. Of that 54 percent influenced, 81 percent stated that they did not let their children watch the programming, 17 percent stated that they viewed the programming along with the child, and less than two percent of those influenced allowed their children to watch the programming anyway (p. 24-25).

Tests of Movie Ratings' Effects on Film Viewing Motivation

Herman & Leyens (1977) found that movies broadcast by RTB — the French-speaking Belgian television company — in 1975 that advised the audience of content had more viewers than those that did not. However, the study did not examine individual audience member differences.

The very first test of the direct influence of movie ratings on individual movie attendance found that there was no difference in high school students' motivation to see a film across the (then) four rating levels, G, PG, R, and X (Austin, 1980). A second test of this influence two years later found similar results (Austin, 1982).

Bahk (2000), while not directly applying reactance theory, found that the likelihood of viewing television programs and movies among college students was increased significantly when mature content advisories preceded the programming, although

differences existed across gender and between sexual and violent content. Specifically, men's viewing interest increased when the advisory warned about sexuality, violence or language, whereas women's viewing interest increased only when advisories warned about sexuality, not violence or language (Bahk, 2000).

Austin's (1982) results showed a significant preference to view PG and R rated films, the second and third most "adult" films (at that time), behind films with an X rating. In self-report data, the sample indicated that among a list of movies presented to them, PG and R rated films made up more than three-fourths of the total number of movies they had attended. Also, when asked to record the most recent movie they had seen, 89.9 percent of the students indicated that the last movie they had seen was rated PG or R. In this study as well as in Austin's third, "partial support for reactance theory" was found (Austin, 1982, p. 63).

What the two studies showing partial support for the theory make most evident is that PG and R rated films are more attractive than G and X rated films. In the past, research has hypothesized — using reactance theory — that X and R rated films would be the most preferred films, because they are the films that are doing the most restricting of freedom. The current study hypothesized, similarly, that NC-17 and R rated films would be most preferred among college students.

Limitations of Previous Studies

In the first study conducted by Austin (1980), the author stated that one limitation of the study was that in its experimental portion (as opposed to the self-report portion), subjects were not given the full potential range of aids used in decision-making, specifically word-of-mouth channels. In the self-report portion, the films that were chosen as most desirable (PG and R rated films) also made up the largest portion of films released when the study was

conducted. In other words, the opportunity to see films rated G and X was more limited than for those rated PG or R.

Austin (1982) provided similar limitations in his second study and added another. He found no support for reactance because admittedly he lacked "a more sensitive instrument for ascertaining salience of movie-going before discounting this variable as inoperative" (p. 32). He stated that replication of his study was necessary to find convincing, consistent data sets.

Austin also acknowledged that the experimental portions of his studies measured the likelihood of a behavior occurring as opposed to the measurement of actual behavior. He described his method of obtaining information as based on "insight," as opposed to "real-life" behavior (p. 64).

As was stated earlier, Christenson (1992) and Austin (1982) both indicated that a limitation present in both of their studies is that ratings may in fact not be a desired attribute of music or a film. As indicated by Wicklund & Brehm (1968), "it is important for a test of the theory that the threatened freedom be one which is valued" (p. 66). It is conceivable that viewers may perceive the MPAA ratings as not very important in their assessment of films.

The Relevance of This Study

Austin (1989) stated that the study of film audiences is necessary because people respond to films. They have reactions — cognitive, affective and behavioral — to films, and are motivated to attend or not to attend them. But his most important reason for studying audiences of motion pictures was based on the fact that films are more than just art. They are more than just "commodities of a business" (p. x). These reactions are social consequences that accompany film-going, and the fact that social consequences exist makes research in this

area necessary. Also, research associated with people's motivations to view films is limited; there is little empirical data in this area (Austin, 1986).

Further research into testing reactance theory would need to account for some or all limitations or suggestions from past research. Future studies need to give a range of aids that audiences can use in decision-making (Austin, 1980). They also need to provide sensitive instruments for ascertaining movie-going salience (Austin, 1982).

Austin adds that research that measures the likelihood of respondents' behavior of occurring as opposed to the measurement of the actual behavior is necessary to avoid results based simply on insight. However, Heilman (1976) stated that it has been previously demonstrated that attempts at restricting freedom may simply inhibit behavior as opposed to actually causing the behavior to occur. In other words, the behavior may not occur despite the fact that motivation to commit an opposing behavior was aroused. Finally, these studies must establish the perceived importance of MPAA ratings to the film-viewing public (Christenson, 1992).

This study replicated Austin's (1982) research with some modifications. It included, for example, a rating scale based on pre-viewing characteristics (elements of a film that are examined by potential audiences prior to viewing) of films such as plot, genre, and rating, so that the importance of specific characteristics of films could be determined. It did not include pre-viewing characteristics such as cast and crew members as Austin's studies did. These characteristics were omitted from this study due to the possibility that a believable "make-believe" synopsis of a film would be difficult to create since some actors and actresses are either not capable of or would not play a character in a film that could legitimately exist in any one of the five MPAA ratings. For example, most actors and

actresses that typically play roles in G rated films would not play a role in an NC-17 film due to the effect it may have on their "screen persona." Also, the possibility exists of a potential viewer choosing the film they wished to view based on the cast, which would have negatively influenced the results of the study.

The Importance of Ratings Distributions in 2001

Of the 739 films rated by the MPAA in the year 2001, there were 30 films that earned a G rating. Fifty-five films received a PG rating, 163 received a PG-13 rating, and 490 were given an R rating. However, no film had content worthy of an NC-17 rating (MPAA, 2002). The fact that there is (and has been in prior studies) a limited number of NC-17 films to choose from may have an effect on people's motivations to see them, simply because they are not readily available.

In Austin's (1980) pilot study of film ratings' effects on motivations to see a film, there were more films rated PG and R than films rated G and X. More importantly, only 6% of films publicly available at that time were rated X. Therefore, he stated that "opportunity to attend such pictures, regardless of desire, was very limited" (Austin, 1980, p. 98).

Austin (1982) stated that reactance theory suggests that restoration of freedom is only applicable in situations when there is a "realistic possibility" of succeeding in that restoration. The fact that no film was rated NC-17 in 2001 negates this possibility.

Hypothesis and Research Questions

In this study, reactance theory would suggest that NC-17 rated movies will be most desirable to see, since they are the most restricted, followed by R and PG-13 rated films. PG rated films will likely be the fourth-most desirable films, followed by films with a G rating. Therefore, the hypothesis of the current study is:

H1: Audiences will perceive NC-17 rated films as most desirable, followed by those rated R, PG-13, PG, and G, in that order.

In 2001, 67% of all films rated by the MPAA were rated R. PG-13 rated films made up 22% of all films, and PG and G rated films made up 7% and 4%, respectively. Since 1968, only 2% of all the films ever rated by the MPAA have earned an NC-17 rating, while R rated films represent 58% of all films ever rated. G rated films make up 7% of all films rated, PG rated films represent 22%, and PG-13 (the second-newest rating, next to NC-17) rated films make up 11% of films rated by the MPAA since 1968 (MPA Worldwide, 2003).

Considering the ratings given by the MPAA since the establishment of the ratings system in 1968, the most important results of this study could quite possibly be those results involving the films that are accessible to the largest audiences. In other words, the most realistic results will come from G, PG, PG-13, and R rated films — those making up 98% of all films rated in the 35 years of the ratings system's existence. Films with these four ratings also comprised the body of films representing 100% of the films released in 2001. This fact did not exclude NC-17 rated films from this particular study, but simply provided another aspect from which this study could be observed, should the results have been affected by the "unrealistic possibility" limitation.

In order to test for support for the hypothesis, this study first had to find out whether people are generally familiar with the MPAA ratings system. In the absence of this knowledge, the findings would not be valid because film viewers could not be impacted by a factor they do not understand. Similarly, viewers that are very familiar with the MPAA ratings and what they mean may be highly influenced by this particular factor. Therefore, this study asked:

RQ1: What are the levels of familiarity that people hold about the MPAA ratings system?

Austin (1982) established that 98.4% of the respondents of the study were in fact familiar with the ratings system and its function.

Next, this study aimed to see how important the rating of a film is to a person as compared to other film characteristics. This data may or may not be relevant, considering psychological reactance tends to be a phenomenon of which the person exhibiting it is unaware. Brehm states that "while there is no assumption that a person will necessarily be aware of reactance, it should be true that when he is, he will feel an increased amount of self-direction in response to his own behavior" (p. 9). As such, this study also assessed the importance people attach to this rating system to determine if this plays a role in affecting reactance. The study therefore further asked:

RQ2: How important is the MPAA rating of a film to people's levels of motivation to see a movie as compared to the film's other characteristics?

This study attempted to answer a question about people's preferences of films based on film ratings. The answer comes from the experimental data of the questionnaire in asking a third research question:

RQ3: Do people generally have a greater likelihood of viewing a film when it is rated NC-17 as compared to G, PG, PG-13, and R rated films?

Also, this study attempted to determine whether the number of films that someone attends on a monthly basis has an effect on their likelihood of attending a film with a specific rating (G, PG, PG-13, R, or NC-17). This data was utilized according to each frequency of movie-going, and the subject data was also collapsed into the categories of "occasional

movie-goers" (who view less than four films per month) and "frequent movie-goers" (who view four or more films per month):

> RQ4: Do occasional movie-goers have a higher likelihood of attending a film with a certain rating as compared to frequent movie-goers?

The study aimed to determine whether the importance one places on the MPAA's rating system as a motivator to see a film has an effect on the likelihood to see a film with a specific rating:

> RQ5: Is there a relationship between people's likelihood of attending a film with a certain rating based on the importance they place on the movie's MPAA rating?

This study would like to determine whether a college student's gender, age and year in school have an effect on their likelihood to attend a film with a specific rating:

> RQ6: Do males and females differ in their intentions to attend a film based on its rating?
>
> RQ7: Is there a difference in people's likelihood of attending a film with a certain rating based on their age?
>
> RQ8: Is there a difference in college students' likelihood of attending a film with a certain rating based on their year in school?

Finally, this study would like to determine, concerning all of the independent variables in the above research questions and hypothesis, whether there are any significant effects of any of the variables on people's likelihoods to view a film:

> RQ9: What effects, if any, do the independent variables from the hypothesis and previous eight research questions have on a college student's likelihood to view a particular film considering all the potential antecedent or influencing variables outlined above?

CHAPTER 3. METHODOLOGY

Data for this study was gathered through an experiment in which subjects responded to a questionnaire (Appendices 1-2) after being shown the synopsis of a fictitious film whose ratings were manipulated (G, PG, PG-13, R, and NC-17). The questionnaire followed the format and protocols established by Austin (1982) with minor modifications.

Pre-testing

A pre-test of the questionnaire was conducted prior to the experiment. This pre-test was done in an attempt to test the questionnaire's clarity and understandability to the subjects, as well as to gain results that would help in modifications benefiting the execution of the study and the final questionnaire design.

Eighty students from an introductory advertising class at Iowa State University comprised the pre-test sample. The pre-test was conducted some time before the experiment, and it was decided based on self-report data indicating the importance of the actors and actresses in the film (examples of which were included in the pre-test), that the film's cast and crew be omitted from the synopsis. Subjects often responded that the presence of Liam Neeson in an NC-17 rated film would make them not want to view the film, and a few subjects reported that the presence of Natalie Portman in an NC-17 rated film would make them want to see the film. The fact that a combination of ratings and cast members was appeared to have an impact on subjects' likelihood to view levels led to the decision to eliminate the cast and crew characteristic and place cast and crew primarily within the realm of the "production elements" characteristic.

Additionally, in the pre-test, a segment of the questionnaire was included in which the subject could select from a list of 20 films (four films from every rating) which they had seen, and also included a question in which subjects reported on what the last movie they viewed was (similar to a question asked by Austin (1982)). These two self-report inquiries were done in an attempt to find results based on what Austin (1982) described as "real-life" behavior as opposed to just "insight." These questions were omitted due to the fact that a method of selecting appropriate films (accessible to all subjects and encompassing a variety of genres) could not be arrived upon.

Additionally, questions asking what about the particular film made the subjects most want to see the film, as well as what characteristics of the film made them not want to see it were added in an effort to obtain self-report data about the proposed film that might explain whether the film itself was liked or disliked by the subjects regardless of rating, and for what reasons.

Sampling

Students comprised a convenience sample taken from an introductory class in the communication studies program at Iowa State University. The sample was composed of 242 subjects primarily from a population of young adults, 18-25 years old. All members of the sample were legally able to attend movies of any rating (G, PG, PG-13, R, and NC-17), yet were close enough to their life experience (age 17 or younger) in which they were legally restricted from viewing R or NC-17 rated films. The assumption is that the feeling of having curtailed freedoms was fresh enough for them to empathize with those currently subject to such restrictions.

Questionnaire

The four-page questionnaire (Appendices 1-2) given to the subjects featured a film synopsis on the front page. The next three pages were devoted to a series of 11 questions about the subjects' film viewing habits and movie rating perceptions. The first page contained the synopsis of a hypothetical film identified as having a release date sometime in the year 2004. The title was placed prominently at the very top of the page in large, bold and italicized typeface. Directly under the title and in parentheses were the film's production company and release date.

At the bottom of the page was placed the MPAA film rating for the motion picture, a standard practice for all movie promotional pieces. The actual MPAA logo copied from the MPAA's homepage (MPAA, 2002) followed each rating. The ratings were evenly distributed across the questionnaires so that approximately one-fifth of the subjects received the synopsis of the film rated as G, approximately one-fifth of the subjects received the synopsis of the film rated as PG, approximately one-fifth of the subjects received the synopsis for the film rated as PG-13, approximately one-fifth of the subjects received the synopsis of the film rated as R, and approximately one-fifth of the subjects received the synopsis of the film rated as NC-17.

The questionnaire began by asking subjects how frequently they attend movies in an average month, and how likely they would be to see the film described in the synopsis, based on a seven-point Likert scale (where "1" is "very unlikely to go see this movie," and "7" is "very likely to go see this movie"). Next, subjects were asked what characteristics of the fictitious film (if any) made them want to view the film, and what characteristics (if any) made them not want to view the film.

Another seven-point scale was used in question five to determine the importance subjects place on movie-going as a leisure activity. The sixth question asked the subjects to rank eight different characteristics of films individually on a scale of one to seven (where "1" is "least important" and "7" is "most important"), to assess the importance they attach to MPAA ratings in comparison to seven other film characteristics. These seven characteristics are based on movie-going motivations identified by Austin (1989). They are: advertising, publicity, reviews, personal influence, story, genre, and production elements. An "other" category was allotted for any unlisted characteristics the subjects were free to add in an open-ended way.

In question seven, participants were asked how familiar they are with the MPAA ratings and what the ratings mean based on a five-point scale (1 = "very unfamiliar," 5 = "very familiar"). This question was used to ascertain the subjects' levels of awareness about the MPAA ratings and whether those awareness levels figure into decisions to view a film.

The questionnaires with a G rating were coded "1," those with a PG rating were assigned "2," the questionnaires with a PG-13 rating were coded "3," those getting an "R" rating were assigned "4," and questionnaires with an NC-17 rating were coded "5." The coded numbers were then selected randomly to determine the order in which to hand out the questionnaires. The questionnaires were handed out in this order as students entered the experimental site: R, PG-13, PG, G, NC-17, R, PG-13, PG, G, NC-17.

The students received the questionnaire in their classroom prior to a meeting of their introductory communication studies class. The subjects were allowed about 15 minutes to complete the questionnaire, though it proved to take only about 10 minutes for each subject

to complete. The questionnaires were distributed by the researcher and two acquaintances, and were collected solely by the researcher.

The students were then debriefed before viewing their questionnaires in the following statements:

> "You have been given a brief description of an imaginary film, followed by a questionnaire applying directly to the described film. Reading the synopsis and completing the questionnaire is not mandatory, and your participation in the study implies that you have given me your consent to use your responses in a research project. This study should take less than 10 minutes of your time, and will cause you no foreseeable harm, discomfort, inconvenience or risk. It is completely anonymous, aside from optional demographic questions. The research involved in this project has to do with film ratings, and your preference to view the film described to you based on its rating. For you, the subject, there is no real beneficial reason to participate in the study, aside from the fact that data will be obtained concerning the film viewing preferences based on rating of you and your peers. Again, participation in this research is voluntary, and you may discontinue participation at any time without any sort of penalty. If you have any questions, feel free to ask before you fill out the questionnaire. Thank you."

The subjects were similarly debriefed by telling them at the end of the experiment:

> "You have been given a brief description of an imaginary film and then asked to complete a questionnaire that solicited some demographic information, your movie-going behavior, and the likelihood that you are going to see this fictitious film based on its attributes. This project intended to study the influence of film ratings on your preference to view the film described to you based on its rating.
>
> I hope you understood that reading the synopsis and completing the questionnaire were not mandatory, and that your participation in the study implies that you have given me your consent to use your responses in a research project. This experiment was designed keeping your safety and well-being in mind. That is, showing you the experimental treatment should not cause any foreseeable harm, discomfort, inconvenience or risk. Your responses will be kept completely anonymous. This means that anything you said in it will not be traced directly to you, and that your responses will be used only for the purpose of analyzing data. If you have any questions regarding how the data will be treated, please feel free to get in touch with me personally or e-mail me at zarley@iastate.edu. You may also wish to confer with the professor monitoring this project. She is Lulu Rodriguez and she is available by phone at 294-0484 or by e-mail at lulurod@iastate.edu. Thank you.

Data Analysis

Variables

The independent variables and dependent variables in the study were based on the following research questions:

RQ3: Do people generally have a greater likelihood of viewing a film when it is rated NC-17 as compared to G, PG, PG-13, and R rated films?

RQ4: Do occasional movie-goers have a higher likelihood of attending a film with a certain rating as compared to frequent movie-goers?

RQ5: Is there a relationship between people's likelihood of attending a film with a certain rating based on the importance they place on the movie's MPAA rating?

RQ6: Do males and females differ in their intentions to attend a film based on its rating?

RQ7: Is there a difference in people's likelihood of attending a film with a certain rating based on their age?

RQ8: Is there a difference in college students' likelihood of attending a film with a certain rating based on their year in school?

RQ9: What effects, if any, do the independent variables from the hypothesis and previous eight research questions have on a college student's likelihood to view a particular film considering all the potential antecedent or influencing variables outlined above?

Based on the research questions, the last research question serves as an omnibus test to determine what independent variables contributed significantly to the variance in likelihood to see the film. These antecedent variables are the film's rating, the frequency with which students attend films, the importance subjects place on a film's rating, ethnic background, gender, and age. The dependent variable throughout the study was subjects' likelihood to view the film.

Method

Operationally, the likelihood of viewing level was measured as a quantitative variable based on a seven-point rating scale, containing a rating level of "1" as "very unlikely to go to the film" and "7" as "very likely to go to the film." To determine whether the subjects would see the film based on rating, a between subjects one-way analysis of variance (ANOVA) with five levels of the independent variable (one for each rating level) was administered to test differences of means across ratings. Descriptive statistics were used to determine the familiarity subjects had with the MPAA ratings system and what this signifies. Means were compared to determine how important the MPAA rating of a film was to the students' likelihood to view a film compared to other attributes and independent variables. A t-test was conducted to determine whether occasional movie-goers had a greater likelihood of attending a film with a specific rating than frequent movie-goers. Rank correlations were used to determine whether a relationship existed between subject likelihood of attending a film with a certain rating and the importance they placed on the movie's MPAA rating. A Mann-Whitney test was used to determine whether males and females differed in their intentions to attend a film based on its rating, and a linear regression test was used to determine whether there was a difference in the subjects' likelihood of attending the proposed film based on their age. Kruskal-Wallis tests were administered to determine whether the subjects' year in school had any significant effects on which rating level of the proposed film they were most likely to view. Finally, a multiple linear regression test was used to determine if any of the aforementioned independent variables had significant effects on likelihood to see the film considering all potential variables that could explain intention to see the movie.

CHAPTER 4. RESULTS AND DISCUSSION

This study was executed in an attempt to find evidence to support the general hypothesis that audiences will perceive NC-17 rated films as most desirable, followed by those rated R, PG-13, PG, and G, in that order. Other than film rating, there are also a number of independent variables that were tested to determine the relative strength of the main independent variable of interest on college students' motivation to attend a film.

Sample Demographics

The study relied on a convenience sample of 242 students in an introductory communication studies class at Iowa State University. Out of the 235 subjects that reported gender, 144 students were females (61.3%), and 91 were males (38.7%).

Of the 234 students who reported their age, 65 were 18 years old (27.8%), 74 were 19 (31.6%), 45 were 20 (19.2%), 23 were 21 years of age (9.8%), 13 were 22 (5.6%), nine were 23 (3.8%), two were 24 (0.9%), and one subject each was of the ages 25, 32, and 45 years old. For an introductory class, therefore, the mean age was at the middle bracket for students who are in college: 19.7 years.

The sample included 109 freshmen (46.6%), 61 sophomores (26.1%), 36 juniors (15.4%), and 28 seniors (12.0%), a composition that is quite common for an introductory-level communication class.

A total of 216 subjects reported on their ethnic background. The sample was composed of 198 (91.2%) Caucasians, six (2.8%) African-Americans, and six subjects (2.8%) of Hispanic ethnic origin. Two students were Asian or Asian-Americans (0.9%), and

one student (0.5%) each represented the ethnic backgrounds of Iranian-American, African-Asian, Arabian, and Native American.

The 242 questionnaires completed by the sample consisted of 48 in which the film described in the synopsis was rated G (19.8%), 45 in which the film described in the synopsis was rated PG (18.6%), 50 in which the film described in the synopsis was rated PG-13 (20.7%), 49 in which the film described in the synopsis was rated R (20.2%), and 50 in which the film described in the synopsis was rated NC-17 (20.7%).

Answering Research Questions and Testing Hypothesis

Because some of the research questions in Chapter 3 were reformulated into hypotheses, this section is divided into research questions that could be answered by descriptive data and hypotheses that were tested using specific statistical procedures.

RQ1: What are the levels of familiarity that people hold about the MPAA ratings system?

The subjects' responses to this question show that, on a scale ranging from one to five where 1 means "very unfamiliar" with the MPAA ratings and what they mean, and 5 means "very familiar" with them, the average reported familiarity with the MPAA ratings stands at 3.82 (std. dev. =1.24). This mean value (with a highest possible of 5) indicates that on average, students fall into the "quite familiar" category.

The results show (as displayed in Table 1) that 72% of the subjects described themselves as "quite familiar" or "very familiar" with the MPAA ratings and what they mean, and just 16% stated that they were "quite unfamiliar" or "very unfamiliar" with them. This reflects a high familiarity level with the MPAA ratings as found by Austin (1982), in which 98.4% of his subjects stated that they were familiar with the MPAA ratings and how

they worked. It should be noted that Austin's data collection method was different from that of this study in that he only inquired whether the subjects were familiar with the MPAA ratings. With 84% of the subjects showing some degree of familiarity, it could be said that college students, in general, are familiar with the MPAA ratings and what they stand for.

Table 1. Frequency table and descriptive statistics for subjects' level of familiarity with MPAA ratings

Levels of familiarity	N	Percent	Mean (all levels)*	Std. dev. (all levels)*
Very unfamiliar	19	7.9	3.82	1.24
Quite unfamiliar	19	7.9		
Neither/nor	28	11.6		
Quite familiar	88	36.4		
Very familiar	80	34.2		
Total	234	100.0		

* = obtained levels on a scale from 1 to 5 (1 = very unfamiliar, 5 = very familiar)

RQ2: How important is the MPAA rating of a film to people's levels of motivation to see a movie as compared to the film's other characteristics?

Due to the indistinct phrasing of this particular research question (*What motivates you to see a movie? Below are some characteristics people think about when they consider whether or not to view a particular film. Please rank the following characteristics (1 = least important, 7 = most important) in order of importance to you.*), some subjects misinterpreted it to mean that the question was asking for the ranking of the nine characteristics in order of importance. In such cases, subjects wrote one number between one and seven before each of the listed characteristics. On occasion, the number eight (and sometimes nine) was used to complete what the subjects believed to be an inquiry about "rank." Such responses were

excluded from the analysis, resulting in a smaller sample size (generally ranging between 179 and 181).

The above research question aimed to elicit general movie-going habits and overall motivations to see a movie irrespective of the experimental treatment. Here, subjects were presented with a list of movie characteristics suggested by Austin (1989) and were asked to rate how important each of these characteristics were to them (on a scale from one to seven, with 1 being "least important" and 7 being "most important") as determinants of their intentions to see a movie. Of the nine movie characteristics in this list, the MPAA ratings was rated the least important (mean = 2.60).

The list included an open-ended "other" characteristic subjects specified as important in prompting them to see a movie. These write-in characteristics included: the actors in the film, what book it might have been based on, the "mood I'm in," the cost of a ticket, whether the film was part of a series, and the film's trailer. Out of the nearly 180 subjects reporting on the importance of pre-viewing characteristics without misinterpretation of the question, 19 specified "other" factors in the list. However, the variability of the responses indicates that this item is highly idiosyncratic and therefore will lose power in the analysis.

Of the remaining eight characteristics, the importance of a film's story (plot, elements of the tale) was considered the most important factor (mean = 6.04) that would influence college students to see a movie. This was followed by personal influence or peer opinions (mean = 5.31), the film's genre, which generally refers to the type of film or general film category (such as drama, comedy, thriller, family, etc.) with a mean of 5.20, advertising and promotional features such as trailers, teasers, and ads in the media (mean = 4.70), production attributes such as direction, production techniques, writing and expected acting performance

(mean = 4.32), the publicity or "hype" surrounding the film, including accompanying merchandise and parallel promotions (mean = 4.20), critics' reviews and audiences' opinions (mean =3.78), in that descending order. Table 2 lists these film characteristics and the importance college students attach to them in making judgments about what movies to see.

Table 2. Mean statistics of the importance of film characteristics on likelihood to view a movie

Film characteristic	N	Mean importance level*
Advertising	181	4.70
Publicity	181	4.20
Reviews	180	3.78
Personal influence	181	5.31
MPAA ratings	180	2.60
Story/Plot	181	6.04
Genre	180	5.20
Production elements	179	4.32
Other	19	6.00

* = mean level of importance on a scale of 1 to 7 (1 = least important, 7 = most important)

As Table 2 indicates, compared to other characteristics, the MPAA ratings are not considered by college students as an important motivator to see a film. Apparently, as in Christenson's (1992) study dealing with parental advisory labels on music and Austin's (1982) study of MPAA ratings on films, the factor being isolated in testing for reactance theory just was not important to the subjects. Wicklund & Brehm (1968) stressed that "it is important for a test of (reactance) theory that the threatened freedom be one which is valued"

(p. 66). However, reactance is often subconscious (Brehm, 1966), rendering subjects' perceived important characteristics irrelevant.

RQ3: Do people generally have a greater likelihood of viewing a film when it is rated NC-17 as compared to G, PG, PG-13, and R rated films?

The results of the between subjects one-way ANOVA (Table 3b) and descriptive statistics for this test (Table 3a) show that the mean likelihood that subjects will view the proposed film when it was rated NC-17 was 3.46, the highest of all five ratings. This was followed by the likelihood to view the G rated film (3.29), the likelihood to view the R rated film (3.27), the likelihood to view the PG-13 rated film (3.20), and the likelihood to view the PG rated film (2.91). Based on mean likelihood, the film with the NC-17 rating was the most desirable among the subjects, rating it just below the middle point on a scale from one to seven.

This exploration of intention to see the movie based on its rating alone would appear to support the hypothesis. However, the mean likelihood for the G-rated film was the second highest of the five ratings variations, followed by those rated R, PG-13 and PG, in that order. The fact that subjects are also very likely to see the film when it is rated G goes against the hypothesized direction. It is therefore no small wonder that the difference between groups in the ANOVA was not significant ($F = 0.818$; $p = 0.561$).

The placement of G as the next most desirable film rating after NC-17 may be because the lopsidedness of the ratio of females to males (N females = 31, N males = 16) in the sample had an effect on the likelihood to see the film rated G. If the sub-populations of the two genders were somewhat closer, results may have been different. G and NC-17 films are also rarely released, creating a sort of "novelty" effect. Only 30 of 739 films released in

2001 were rated G. Because no NC-17 films were released that year, it is obviously the film with the least common rating. However, the remaining three films displayed the inverse of this phenomenon; R was the most common film rating in 2001 (490 of 739), followed by PG-13 (163 of 739) and PG (55 of 739) (MPAA, 2002), and were rated as desirable in that order.

Table 3a. Descriptive statistics from the one-way ANOVA testing the difference among subjects grouped by treatment (film rating) on likelihood to see the movie

	N	Mean	Std. Deviation	Std. Error
Rated G	48	3.29	1.52	.22
Rated PG	45	2.91	1.36	.20
Rated PG-13	50	3.20	1.51	.21
Rated R	49	3.27	1.78	.25
Rated NC-17	50	3.46	1.70	.24
Total	242	3.23	1.58	.10

Table 3b. Results of the one-way ANOVA testing the difference among subjects grouped by treatment (film rating) on likelihood to see the movie

	Sum of squares	df	Mean square*	F	Sig.
Between groups	7.509	4	1.877	.747	.561
Within groups	595.532	237	2.513		
Total	603.041	241			

* = likelihood is based on a scale of 1 to 7 (1 = very unlikely to view, 7 = very likely to view)

What happens, however, if the categories are collapsed so ratings that are closer together in terms of their attributes are paired against another ratings pair? It is conceivable, for example, that G and PG ratings could be combined to compose one category. This may also be the case with R and NC-17 ratings that are seemingly qualitatively alike although

different in intensity. Table 4 displays the results of the independent samples t-test that was administered to test this possibility. T-test results show that there is no significant difference ($t = 1.107$; $p = 0.28$) between the subjects' likelihood to view a film when it was rated G or PG as compared to when it was rated R or NC-17. When G and PG ratings were combined to form a category and then compared to the combined PG-13 and R category, t-test results also show no significant difference in likelihood to view a film ($t = 0.557$; $p = 0.578$).

Table 4. Independent samples t-tests comparing likelihood to see a movie rated G and PG to movies rated R and NC-17 and films rated PG-13 and R (n=192)

Compared pairs	**Equal variances assumed***		
	t	**df**	**Sig. (2-tailed)**
G/PG, R/NC-17	1.107	190	.270
G/PG, PG-13/R	.557	190	.578

* = likelihood is based on a scale of 1 to 7 (1 = very unlikely to view, 7 = very likely to view)

These results may have been skewed, however, by the imbalance in the gender ratio. Regardless, results of the ANOVA and the t-test did not provide support for the hypotheses engendered by RQ3.

RQ4: Do occasional movie-goers have a higher likelihood of attending a film with a certain rating as compared to frequent movie-goers?

"Frequent" movie-going was operationally defined in this study as seeing four movies or more per month, implying that "frequent movie goers" are those who see at least one movie per week. Seeing less than one movie per week was designated as "occasional" movie-going behavior. Table 5a displays the sample sizes of occasional and frequent movie-goers and the likelihood that they will see a movie based on its MPAA rating.

Results of a t-test shown in Table 5b indicate that there is no significant difference ($t = 0.846$, $p = 0.398$) between "occasional movie-goers" and "frequent movie-goers" in terms of their intention to see a movie based on its rating.

Table 5a. The likelihood that frequent and occasional movie goers would view a film based on its rating

Frequency of movie attendance	N	Mean likelihood level*
Occasional (<4 films/month)	223	3.21
Frequent (≥4 films/month)	19	3.53

* = likelihood is based on a scale of 1 to 7 (1 = very unlikely to view, 7 = very likely to view)

Table 5b. Independent samples t-test comparing the likelihood of seeing a movie based on its rating by frequent and occasional movie goers (n=242)

Comparing	Equal variances assumed*		
	t	**df**	**Sig. (2-tailed)**
Frequent vs. occasional movie-goers	.846	240	.398

* = likelihood is based on a scale of 1 to 7 (1 = very unlikely to view, 7 = very likely to view)

Based on the independent samples t-test, the amount of time a subject spends at the movies was found to have no significant effect on his/her likelihood to view the proposed film. This study contained an extremely high ratio of occasional movie-goers (N = 223) to frequent movie-goers (N = 19), which may have affected the results. This may indicate that frequent movie-goers are less particular about the films they view because watching movies is to them already an established hobby. Even with a more evenly distributed sub-sample, therefore, one can predict no difference in likelihood to view the proposed film.

RQ5: Is there a relationship between people's likelihood of attending a film with a certain rating based on the importance they place on the movie's MPAA rating?

A Kendall's tau-b rank correlation coefficient was computed to determine if there is a relationship between likelihood of attending a film with a certain rating and the importance subjects place on the movie's MPAA rating (Table 6). The correlation coefficient was negative (-.005), indicating an inverse relationship between the two variables, and not significant ($p = 0.936$). The underlying hypothesis of this research question, therefore, was not supported.

Table 6. Kendall's tau-b rank correlation between likelihood of viewing and the importance attached to the MPAA rating

	Likelihood of viewing (n = 187)*	**Importance level of rating (n = 180)***
Kendall's Tau-B		-.005
Significance (2-tailed)		.936

* = levels measured by scales of 1 to 7 (1 = least likely/important, 7 = most likely/important)

The direction of the relationship suggested by the weak correlation coefficient obtained from these results indicates that the more important the MPAA ratings are in the subjects' decision-making on what film to view, the less likely they are to view the proposed film. This relationship, however, was not significant and the hypothesis was not supported.

RQ6: Do males and females differ in their intentions to attend a film based on its rating?

For this particular research question, a Mann-Whitney analysis was administered without including rating (so as to determine whether a difference exists at all between males' and females' intentions to view the proposed film regardless of its rating). This was followed by five separate Mann-Whitney tests for each potential rating. Results of the omnibus Mann-Whitney test show highly significant gender differences in likelihood to view the proposed

film across the five rating levels (p = .000). In general, males wanted to see the film more than females, based on mean likelihood to view level comparisons (Table 7a).

Table 7a. Mean statistics for gender differences in likelihood to view a movie based on its rating

	N		Mean likelihood to view level	
Rating	**males**	**females**	**males**	**females**
ALL (N = 235)	91	144	3.85	2.83
G	16	31	3.81	2.97
PG	15	30	3.40	2.67
PG-13	14	33	4.00	2.79
R	22	26	4.05	2.58
NC-17	24	24	4.00	3.13

Table 7b. Mann-Whitney tests for gender differences in likelihood to view a movie based on its rating

Rating	**Mann-Whitney U**	**Wilcoxon W**	**Z**	**Two-tailed significance**
ALL (N = 235)	4219.500	14659.500	-4.689	.000
G	175.000	671.000	-1.710	.087
PG	151.500	616.500	-1.818	.069
PG-13	133.500	694.500	-2.310	.021
R	161.000	512.000	-2.634	.008
NC-17	212.500	512.500	-1.587	.113

To better illustrate which ratings may have affected this difference in males' and females' propensity to view the movie, the ratings were broken down individually and tested. The significant differences were exhibited between male and female intentions to see films

rated PG-13 ($p = .021$) and R ($p = .008$). Men, in general, preferred to see PG-13 and R rated movies at a significantly greater level than women. Males also appeared to prefer the film more than females at the other three ratings levels according to mean likelihood to view levels, though the differences were not significantly significant.

Table 7b displays the results of the six Mann-Whitney tests conducted for this research question. The results provide support for the hypothesis.

There were obvious gender differences in likelihood to view the proposed film. As Table 2 illustrates, a film's genre received a rating close to five on a 1 to 7 scale in terms of its importance in influencing what movies to watch. Males reported that they tend to prefer science fiction while females generally "hate" this genre (according to self-report data). The proposed film in the study is classified as a science fiction drama, with more science fiction aspects in it than drama. The very nature of the treatment film may explain the significant gender differences in likelihood to view the proposed film.

RQ 7: Is there a difference in people's likelihood to attend a film with a certain rating based on their age?

Perhaps the most important aspect of Brehm's (1966) reactance theory as it applies to this study is the idea of humans' inherent nature to re-establish freedoms restricted by social implication. Brehm (1966) and Wicklund and Brehm (1968), in essence, say that if one's behavior has been curtailed by some sort of social threat, another person in the same situation or existing in the same environment or circumstances will exercise the very freedom lost by the other person.

In this study, this "reactance by implication" was the underlying concept utilized from the theory because all subjects involved were of legal age and can therefore view any

film, regardless of rating (e.g., no subject's freedom was being lost). The only reactance any of the subjects could have experienced was by implication. If reactance by implication was indeed present, then those experiencing it most would be the ones closest in circumstance to (or, nearly "in the same boat" as) someone who may have "lost" some freedom due to the MPAA ratings. "Reactance by implication" is therefore subsumed by the demographic variables age and year in school (since restrictions placed on films have nothing to do with gender or ethnicity).

A regression analysis administered to determine whether age affects the propensity to see a film with a specific rating shows that age does not contribute substantially to the variance in likelihood to see a movie ($F = 1.282$, $p = .280$). In short, age is not a factor that significantly affects people's intentions to see films regardless of their rating (Table 8). The underlying hypothesis, therefore, was not supported.

Table 8. Regression test of the influence of age on likelihood to view the movie (n=234)

	R square	df	F	F Change	Sig.
Likelihood based on age	.011	233	1.282	1.282	.280

RQ8: Is there a difference in college students' likelihood of attending a film with a specific rating based on their year in school (i.e., whether they are freshman, sophomore, junior, senior)?

As with research question 6, an omnibus Kruskal-Wallis test was first conducted across all ratings and without considering rating (so as to determine if there is a difference in intention to watch a movie based exclusively on years spent in college). This test was followed by a series of five different Kruskal-Wallis tests (one for each potential rating). Results of the general test show highly significant differences in likelihood to view the proposed film across the four different years in college. However, the tests fail to show any

significant differences in likelihood to see a movie across the four years of college when the results were broken down into the five ratings levels.

Table 9a. Mean statistics for differences in likelihood to view based on year in school

Subject year in school	N	Mean likelihood to view level
Freshman	109	2.96
Sophomore	61	3.16
Junior	36	3.89
Senior	28	3.57
Total	234	3.23

Table 9b. Kruskal-Wallis tests for differences in likelihood to view based on year in school

Rating	Chi-square	df	Significance level
ALL (N = 234)	11.666	3	.009
G	2.262	3	.520
PG	.691	3	.875
PG-13	4.605	3	.203
R	2.605	3	.457
NC-17	3.097	3	.377

Across the ratings, very significant differences were found (Chi-square = 11.67, p = .009) in students' propensity to view the proposed film. Based on mean ranks (Table 9a), juniors (mean likelihood to view level = 3.84) were more likely to see the proposed film than seniors (mean likelihood to view level = 3.57), who were more likely to see the film than sophomores (mean likelihood to view level = 3.16) and freshmen (mean likelihood to view level = 2.96).

Although the individual tests did not demonstrate any difference in intention to see the film based on year in school, this hypothesis was supported. Table 9b displays the results of the six Kruskal-Wallis tests conducted for this research question.

As hypothesis testing for RQ7 points out, there is no evidence to support the notion that likelihood to view a film based on its rating differs by age. While the Kruskal-Wallis tests above support the idea that a college student has a different likelihood of viewing a film based on its rating depending on year in school, there is no evidence that would support "reactance by implication" per se. It appears from the data that, if anything, the PG-13 rated film had the most significant likelihood to view level based on subject year in school. Reactance by implication would require significant results showing NC-17 as the film's rating level most likely to be seen, and freshmen would have the highest likelihood level.

RQ9: What effects, if any, do the independent variables from the hypothesis and previous eight research questions have on a college student's likelihood to view a particular film considering all the potential antecedent or influencing variables outlined above?

To answer this question, a multiple linear regression analysis was conducted. The regression equation in this case took into account all of the potential variables that might have an impact on likelihood to see the movie mentioned above. This more stringent multivariate test also attempted to determine the influence of each individual independent variable while controlling for the impact of other variables on likelihood to view the film.

The multiple linear regression test was executed with 16 independent variables, divided into four different "blocks," or categories of related variables. The four blocks are: demographics, personal value characteristics, film characteristics, and film rating.

Table 10. Multiple linear regression testing the influence of blocks of independent variables on likelihood to view the movie (n=234)

Independent variables	Beta	t	R square	F	F Change	df	Sig.
Demographics			.305	2.048	2.048	17	.153
Gender	.271	.429					
Age	-.098	-.207					
Year in school	.645	.962					
Personal Value Chars.			.405	4.486	5.117	17	.019
Film attendance	.525	.826					
Film importance	.239	.444					
Familiarity w/ ratings	1.297	1.492					
Film Characteristics			.164	.923	.289	17	.923
Advertising	-.432	-.738					
Publicity	-.097	-.190					
Reviews	.972	.744					
Personal Influence	.527	.923					
MPAA Rating	.589	.481					
Story	1.249	.576					
Genre	-.605	-.956					
Production Elements	-1.783	-.667					
Other	.847	.711					
Rating of the film	.601	.741	.045	.705	.550	17	.594

The first block is comprised of the demographic variables gender, age, and year in school. The second block is composed of variables that have something to do with subjects'

movie-going habits. These include film attendance frequency, the importance subjects attach to movies as a leisure activity, and subjects' familiarity with the film ratings. The third block of independent variables is composed of the importance students placed on communication variables related to the promotion of a film, such as advertising and publicity, film reviews, peer (personal) influence, and the MPAA ratings. This block also contains independent variables based on the importance placed by the subjects on characteristics inherent to a film such as, the importance of genre, production elements, and "other" characteristics of a film. The fourth block is simply the rating of the proposed film for which the subject read a synopsis. Table 10 shows the results of the multiple linear regression procedure to test the influence of independent variables on likelihood to see the movie.

Table 10 clearly indicates that of all the potential antecedent variables, only personal value characteristics had a significant effect on likelihood to view the proposed movie ($F = 4.486$, $p = .019$). When examining the standardized Beta coefficient and t values in that second block (personal value characteristics), it appears that the subjects' familiarity levels with the MPAA ratings and what they mean had the most impact on the change in F (Beta = 1.30, $t = 1.49$) of the three variables. It also appears that subjects' likelihood to view was higher when familiarity with the ratings was higher. Since it was already indicated that overall, subjects had a high familiarity level with the ratings and what they stand for, the data illustrates that this high familiarity level also affects the likelihood to view a film, yet subjects reported ratings to be of the least importance in terms of their influence on making them want to see a movie.

This being the case, it is likely that subjects were unconscious of reactance (though it was occurring) in terms of familiarity with and knowledge of the ratings in their movie-going

decision. This would support an aspect of psychological reactance theory suggested by Brehm (1966) — that the subject is hardly ever aware of reactance when it is occurring despite an obvious change in desire to engage in freedom-restoring activities.

Despite the significant finding of this omnibus test for all the independent variables mentioned in the previous research questions, it is not sufficient or necessary to provide support for the hypothesis. The hypothesis would have been bolstered by significant influences of "importance of MPAA ratings" and the "rating of the film" on intention to view. Similarly, reactance by implication could have been empirically demonstrated had there been significant differences in likelihood to view across year in school and age.

CHAPTER 5. CONCLUSIONS

Implications of the Study

Because the film medium is one that is considered more of an "art form" compared to other media (Austin, 1989), films may include violence, language, nudity, sensuality and drug abuse at levels that range from zero or very little to saturated or to the point of being considered "adult-oriented."

It is for this reason that the MPAA devised its ratings system, which has changed from a four level system at its beginning in 1968 to the five level (G, PG, PG-13, R, NC-17) system of today. Because films are more than just art and more than just business commodities, they compose a sub-area of entertainment whose impact needs to be ascertained. There are social experiences and consequences attendant to film-going, and because movies have such a profound effect on human behaviors, attitudes and emotions, it is imperative that research be conducted to determine how and why these effects occur (Austin, 1989).

Prior research has indicated that children and young adults are more likely to view a film when it is accompanied by some sort of warning against its content, which is exactly the purpose of the MPAA ratings. These findings would provide support for psychological reactance theory. Reactance theory assumes that individuals believe they have a set of "free behaviors" in which they are free to engage. These free behaviors must be "realistically possible: smoking a cigarette could be a free behavior, while walking to the moon could not" (Brehm, 1966, p. 3). Given the existence of these free behaviors, the individual will

experience reactance (the feeling of having a need to restore lost freedoms) whenever any of these freedoms are eliminated or are threatened to be eliminated.

Reactance may come in different forms, one being the actual engagement of the individual (direct re-establishment) in the eliminated or threatened free behavior, or by re-establishment by implication. Reactance by implication is the idea that given a group, if one person was deprived of his or her freedom while the others were not, the behaviors of free individuals will give the restricted individual a feeling that his or her "lost" freedom has been re-established (Brehm, 1966). This concept was explained further by Wicklund and Brehm (1968) who stated that "when reactance is due to a threat rather than to [the] unequivocal elimination of a freedom, the individual can restore the freedom by actually engaging in the behavior whose freedom is threatened" (p. 65).

Given these assumptions, this study attempted to find evidence to support psychological reactance in terms of subjects' likelihood to view films based on their perception of the Motion Picture Association of America ratings. If psychological reactance by implication is present, college students would express more preference for movies with the NC-17 rating. Such a preference would decrease according to rating level in this order: R, PG-13, PG, and G.

Data was gathered through an experiment in which subjects responded to a questionnaire after being shown the synopsis of a fictitious film whose ratings were manipulated (G, PG, PG-13, R, and NC-17). The questionnaire followed the format and protocols established by Austin (1982) with minor modifications. The sample consisted of 242 students in an introductory communications studies class at Iowa State University.

Nine research questions were answered so conclusions could be drawn from the data gathered in the experiment. The first asked: What are the levels of familiarity that people hold about the MPAA ratings system? The subjects were found to be "quite familiar" with the MPAA ratings system and what they mean, giving validity to the results. This is because a sample of students who are unfamiliar with the ratings and what they stand for would report likelihood to view levels based on characteristics of the film other than the rating. No knowledge or lack of familiarity would likely provide low variance in the responses.

The second research question asked: How important is the MPAA rating of a film to people's levels of motivation to see a movie as compared to the film's other characteristics? The MPAA rating was found to be the least important of all suggested characteristics of a film provided by Austin (1989). The mean importance was very low compared to that of other characteristics. As such, it was decided that the ratings meant very little to the subjects in terms of their influence on movie-going decisions.

The third research question asked: Do people generally have a greater likelihood of viewing a film when it is rated NC-17 as compared to G, PG, PG-13 and R rated films? It was found that while NC-17 was the most preferred film rating of the five, G was next preferred, followed by R, PG-13, and PG, in that order. Also, the results were not significant, so ratings were found not to directly affect college students' likelihood of viewing a film.

Research question four asked: Do occasional movie-goers have a higher likelihood of attending a film with a certain rating as compared to frequent movie-goers? It was found that there was no difference in likelihood to view the proposed film between frequent movie-goers and occasional movie-goers.

The fifth research question asked: Is there a relationship between people's likelihood of attending a film with a certain rating based on the importance they place on the movie's MPAA rating? Results showed no relationship between people's likelihood of attending a movie with a certain rating based on the importance they placed on MPAA ratings. A very small correlation hinted that, if anything, subjects who place more importance on the MPAA ratings were less likely to view the proposed film.

Research question six asked: Do males and females differ in their intentions to attend a film based on its rating? It was found that males and females did indeed differ in their likelihood to attend a film based on rating, the biggest differences shown at the PG-13 and R rating levels. Men have a significantly higher preference for PG-13 and R rated films than do women.

The seventh research question asked: Is there a difference in people's likelihood to attend a film with a certain rating based on their age? Significant results in response to this research question would support reactance by implication. However, it was found that age had no significant influence on people's likelihood to view the proposed film.

Research question eight asked: Is there a difference in college students' likelihood of attending a film with a specific rating based on their year in school (i.e., whether they are freshman, sophomore, junior, senior)? The answer to this question is: Yes, there is a significant difference in likelihood to view a film with a specific rating based on year in school. However, there is no support for reactance by implication, since freshmen did not show the most reactance.

The ninth and final research question asked: What effects, if any, do the independent variables from the hypothesis and previous eight research questions have on a college

student's likelihood to view a particular film considering all the potential antecedent or influencing variables outlined above? Results indicated that a potential movie-goer's personal value characteristics, specifically the importance they place on film-going as a leisure activity, the familiarity they have with the MPAA ratings and their meanings, and how often they attend films, have significant effects on likelihood to view a film. Further analysis of the results illustrates that familiarity with ratings accounts for much of these effects, and, as familiarity increases, as does likelihood to view.

There were no results to support the hypothesis that students' likelihood to view a film based on the MPAA ratings increased as ratings went from G to PG to PG-13 to R to NC-17, with NC-17 being the most preferred film rating and G being the least preferred. Significant results were found, however, in terms of demographic data, more particularly in terms of the subject's year in school. It was found that likelihood to view a film differs according to year in school.

Significant effects were also found to support the hypothesis in terms of gender, in that likelihoods to view were different between men and women, especially when examining R and PG-13 rated films; men preferred R rated films more and women preferred PG-13 films more.

Significant results were found indicating that subjects' propensity to view a film based on its rating was different in terms of combined personal value characteristics (such as their frequency of movie attendance, the importance they place on movie-going as a leisure activity, and the familiarity they have with the MPAA ratings and what they mean). Individually, a subject's familiarity with the MPAA ratings and what they mean had the biggest influence on likelihood to view. The number of films the subject viewed per month

had a considerable influence, though it only possessed half the influence of the "familiarity" variable. The third of the personal value characteristics, the importance the subject places on movie-going as a leisure activity, had half the influence of the number of films the subject attended on a monthly basis. The lack of power of this third variable of the personal value characteristics demonstrates just how strong an influence the "familiarity" variable and the "frequency of movie attendance" variable had on the likelihood to view variable when combined.

No significant results were found to indicate that any other individual independent or antecedent variable in the study (the frequency with which students attend films, the importance subjects place on a film's rating, ethnicity/ethnic background) had an effect on likelihood to view a film.

It seems that reactance is present when a college student is choosing to view a film based on the MPAA ratings, but that reactance requires the existence of specific personal value variables and depends greatly on that student's year in school. Based on the low level of importance subjects placed on MPAA ratings as a factor that affects movie-going decisions, it is apparent that students are also unaware of the occurrence of reactance. That reactance is subconscious is an aspect of the theory explained by Brehm (1966).

To further add to the body of research that looks for relationships between industry-imposed ratings and the likelihood of viewing films, future studies may be more successful in pinpointing the conditions producing significant relationships by employing multiple trials. Such studies could benefit from the use of "more sensitive instruments" that Austin (1982) found necessary to measure the effects of film ratings on viewer preferences and motivations

to view films. That instrument can be constructed by overcoming the limitations inherent in this study's design.

Limitations of the Study and Suggestions for Further Research

The problems encountered in this study could certainly inform further efforts in the realm of entertainment research. First, this study's sample had a disproportionately high number of females. Because gender was found to significantly influence likelihood to view the promoted film based on ratings, the predominantly female sample must have skewed the results. The sample also had an overwhelmingly large proportion of subjects reporting a Caucasian/White ethnic background, which negates valid tests for ethnicity effects on likelihood to view. A more diverse group of subjects in terms of gender and ethnicity would have been ideal. Such limitations could be overcome by random sampling to arrive at a sample more representative of the population.

Based on the results of this study, a worthwhile area of further research to seek may lie in observing the effects of the two ratings on the extremes of the restriction scale (NC-17 and G) on likelihood to view the promoted film. The findings of this study indicate that subjects consider films with these two ratings most desirable. The novelty of NC-17 and G rated films may attract film-goers, providing stronger empirical evidence that ratings affect people's movie-going preferences.

The more limited availability of films with this rating creating an increased desire to view them would support something called "commodity theory," which "postulates that the less available an object is, the greater the value that will be attached to it" (Herman & Leyens, 1977, p. 49). Herman and Leyens found support for commodity theory while also testing for reactance in their study involving Belgian Television.

The results of future studies that provide a more stringent test for the impact of different levels of importance people place on the MPAA ratings on the decision-making process will also be useful for this general line of inquiry. The sample may be grouped according to the importance they attach to the MPAA ratings, and their intentions to watch the promoted film ascertained. The same could also be asked of subjects with different levels of familiarity with the MPAA ratings. What films are preferred by people who are very familiar and very unfamiliar with MPAA ratings is indeed worth exploring.

Bahk's (2000) study, although not directly applying reactance theory, found that the likelihood to view movies and television programs increased among college students when mature content advisories accompanied the program. Bahk offers a good basis for further research. In Bahk's study, differences were found between gender and across sexual and violent television and film content. An area for further research may be one in which content accompanies the ratings, and aspects of the film causing the need for a specific rating could be extracted and compared.

Similarly, it may also be worthwhile to study just the NC-17 films and find out the desirability levels they elicit. Such an endeavor could replicate the current study, but with minor modifications. In this case, wherein all the films in the treatment would be rated NC-17, would subjects be less likely to view them? In self-report data, would subjects say the rating turned them away from the film? Would results in either of these two possibilities vary if different genres of films were considered? Future studies could determine if one genre of film would be more desirable at a specific rating than another. The suggestions above may indeed indicate that media use, specifically for entertainment purposes, offers a ripe field for testing the theory of psychological reactance.

APPENDIX A. SYNOPSIS VARIATIONS

"Eclipsed"
(Miramax, 2004)

Scientist Hendrick Moultry and his daughter Rebekah travel into space in the year 2039 to test their heavily-criticized theory of time travel. Their journey begins on the dark side of the moon, the only environment suitable for their experiment (because of the moon's ability to shield radio waves). When the experiment is successful, the scientists find themselves orbiting earth on July 19, 1969, in the midst of NASA's Apollo 11 mission to the moon. Their unidentified craft is reported as belonging to either extra-terrestrials or the U.S.S.R. In the midst of space competition between the U.S. and U.S.S.R., FBI investigator Charles Atwood convinces head of the FBI J. Edgar Hoover to declare the latter, to avoid worldwide fear of aliens. This accusation against the U.S.S.R. accelerates the cold war — jump-starting World War III — and changing history for the worst. The Moultrys are apprehended and must convince a plucky reporter of the far-fetched true story. The scientist team is accused of aiding the Russian cause, and their lives now hang in the balance as well as the lives of the millions of future sufferers of World War III.

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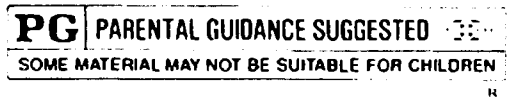

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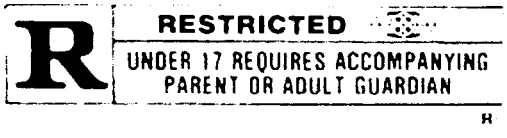

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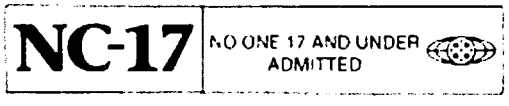

APPENDIX B. QUESTIONNAIRE QUESTIONS

1. On average, how many times a month do you go to the movies?

1 one or less

2 two

3 three

4 four

5 five

6 six

7 seven or more

2. After reading the synopsis for the film "Eclipsed" described above, would you say that you are:

1 Very unlikely to go see this movie

2

3

4 Indifferent

5

6

7 Very likely to go see this movie

3. What characteristics (if any) of the synopsis for "Eclipsed" make you want to see the film?

*4. What characteristics (if any) of the synopsis for "Eclipsed" make you **not** want to see the film?*

5. How much importance do you place on movie-going as a leisure activity?

1 It is not important at all

2

3

4 It is as important as any other leisure activity

5

6

7 It is highly important

*6. What motivates you to see a movie? Below are some characteristics people think about when they consider whether or not to view a particular film. Please rank the following characteristics (**1** = least important, **7** = most important) in order of importance to you.*

Advertising (trailers, ads in the media) _____

Publicity (hype surrounding the film, merchandise) _____

Reviews (critics' and audience opinions) _____

Personal influence (peer opinions) _____

The MPAA rating (G, PG, PG-13, R, NC-17) _____

Story (plot, elements of the tale) _____

Genre (type of film — drama, comedy, thriller, family, etc.) _____

Production elements (direction, production, writing, acting) _____

Other _____ _____

7. How familiar are you with the Motion Picture Association of America's (MPAA) ratings — G, PG, PG-13, R, NC-17 — on films and what they mean in terms of the film's content?

1 I am very unfamiliar with the MPAA ratings and what they mean

2

3 I consider myself neither familiar nor unfamiliar with the MPAA ratings

4

5 I am very familiar with the MPAA ratings and what they mean

8. What is your gender? M F

9. How old are you? _____

10. What is your year in school? _____

11. What is your ethnicity/ethnic background? _____

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